DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-016346
Date Inspected: 08-Aug-2010

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

OSM Arrival Time: 700
OSM Departure Time: 1900
Location: Shanghai, China

CWI Name: Mr.Qiu Wen

Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A
				Approved WPS:	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☐ No	☑ N/A

Bridge No: 34-0006
Component: Tower and Orthotropic Box Girder (OBG)

Summary of Items Observed:

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

BAY 10

This QA Inspector performed randomly Visual Inspection and Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL-6027 (UT) report for this date. The member is identified as OBG Bike path. The weld designations reviewed are as follows.

BK004A1-028-009, BK007A1-001-009, BK004A1-030-009
NDT Notification No-06354

BAY 11

This QA Inspector performed randomly Visual Inspection and Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL-6027 (UT) report for this date. The member is identified as Tower Strut. The weld designations reviewed are as follows.

ND1-STSA4-6-143M-2-74A/B

NDT Notification No-06355

BAY 11
This QA Inspector performed randomly Visual Inspection and Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL-6027 (UT) report for this date. The member is identified as OBG Bike path. The weld designations reviewed are as follows.

BK004A1-017-009,
NDT Notification No-06361

This QA Inspector observed the following work in progress:
BAY 11: SMAW Process.
This QA Inspector observed ZPMC qualified welding personnel identified as 040611, 040610, 041271, 040724 Perform Shielded Metal Arc Welding (SMAW) on East Tower lift 5 Grillage plate, Joint identified as ESD1-TL5-2B-F-22, 23. ZPMC QC Identified as Ma Qianli Ma. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-Tc-U4c.

This QA Inspector observed ZPMC qualified welding personnel identified as 046709, 046769 Perform Shielded Metal Arc Welding (SMAW) on East Tower lift 5 Grillage plate, Joint identified as ESD1-TL5-2E-F-12B. ZPMC QC Identified as Ma Qianli Ma. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-Tc-U5b.

SMAW process Repair welding:
This QA Inspector observed ZPMC qualified welding personnel identified as 044541, Perform Shielded Metal Arc Welding (SMAW) on Interior Splice plate. Joint identified as ESD1-SPSA5-7-4A. ZPMC QC Identified as Liu Dao FenG with Critical welding repair report CWR-T-CWR671. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-485-SMAW-2G (2F) Repair-1.

BAY 10, SMAW Process:
This QA Inspector observed ZPMC qualified welding personnel identified as 067993, 066674, 066398, 066401, Perform Shielded Metal Arc Welding (SMAW) on North Tower lift 5 Grillage plate. Joint identified as NSD1-TL5-3F-F-2, 3. ZPMC QC Identified as Yu Zhi Lai. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-Tc-U4c.

This QA Inspector observed ZPMC qualified welding personnel identified as 066155, 037840, 067707, 066443, Perform Shielded Metal Arc Welding (SMAW) on North Tower lift 5 Grillage plate. Joint identified as NSD1-TL5-3B-F-25B, 34B. ZPMC QC Identified as Yu Zhi Lai. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-Tc-U5b.

This QA Inspector observed ZPMC qualified welding personnel identified as 057259, 040372, 040273, Perform Shielded Metal Arc Welding (SMAW) on South Tower lift 5 Grillage plate. Joint identified as SSD1-TL5-1B-F-12, ZPMC QC Identified as Yuan Hai Gang. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-Tc-U5b.

This QA Inspector observed ZPMC qualified welding personnel identified as 052493, Perform Shielded Metal Arc Welding (SMAW) on South Tower lift 5 Grillage plate. Joint identified as SSD1-TL5-1E-F-1B, ZPMC QC Identified as Yuan Hai Gang. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-Tc-U5b.

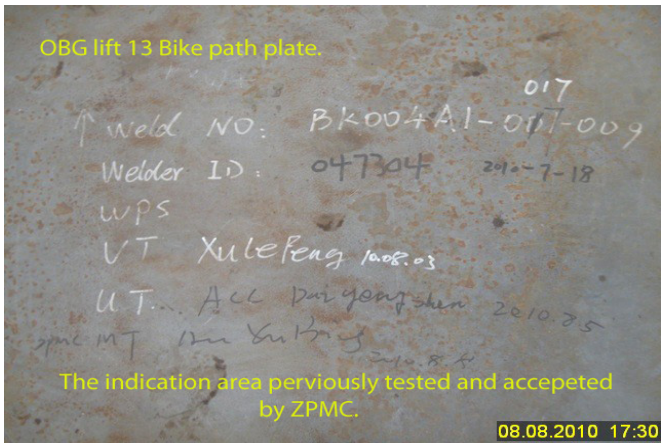
This QA Inspector observed ZPMC qualified welding personnel identified as 040582, Perform Shielded Metal Arc Welding (SMAW) on South Tower lift 5 Grillage plate. Joint identified as SSD1-TL5-1F-F-26, ZPMC QC Identified as Yuan Hai Gang. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3313-Tc-P5.

This QA Inspector observed ZPMC qualified welding personnel identified as 053049, 052493, Perform Shielded Metal Arc Welding (SMAW) on South Tower lift 5 Grillage plate. Joint identified as SSD1-TL5-1B-F-22, 23, ZPMC QC Identified as Yuan Hai Gang. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-Tc-U4c.

BAY 11

During random 10% verification Ultrasonic Testing (UT) of OBG Lift 13 Bike path plate, this Quality Assurance Inspector (QA) discovered the following issue: One (1) Class "A", non conforming longitudinal indication measuring approximately 25 mm in length. The weld is identified as BK004A1-017-009; complete joint penetration (CJP) Butt joint. OBG lift 13 Bike path plate. The discontinuity rating is observed as +10, Class "A" reject. The discontinuity is oriented at the Depth approximately 13mm from face A; Y location measured 4340mm (Y location is measured from nearest end of weld joint). X location measured 0 mm. The Material thickness is 16 mm. The member is NON SPCM (Non Seismic Performance Critical Member). The member is located in fabrication Bay 11. The indication is in an area previously tested and accepted by ZPMC QC. The Notice of Witness Inspection Number (NWIT) is 06361. For further information, please see the attached pictures below. This QA inspector generated incident report for this date.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.



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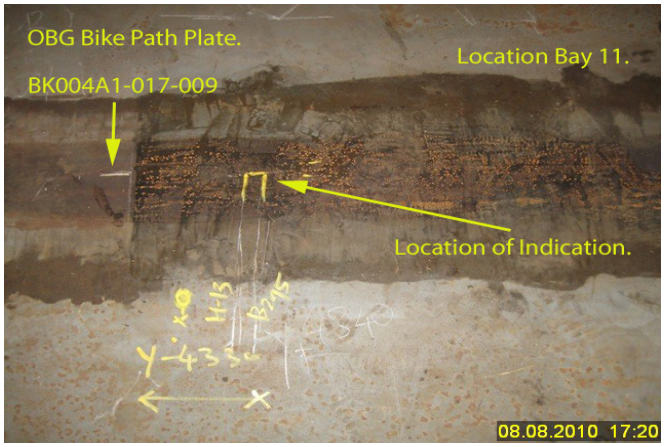

Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Michael Ng Phone: 15921845703, who represents the Office of Structural Materials for your project.

Inspected By:	Gaikwad,Shailesh	Quality Assurance Inspector
Reviewed By:	Clifford,William	QA Reviewer